GOVERNMENT OF INDIA
SCIENCE AND TECHNOLOGY
LOK SABHA

STARRED QUESTION NO:244
ANSWERED ON:16.12.2015
Allocation of Funds for Research Projects
Singh Shri Kirti Vardhan

Will the Minister of SCIENCE AND TECHNOLOGY be pleased to state:

(a) whether the Council of Scientific and Industrial Research has taken up many research projects for new inventions in various fields for the benefit of the common people;
(b) if so, the details of major projects undertaken by CSIR in various States, including Uttar Pradesh during the last three years; and
(c) the budget allocated and spent on the projects in the States,
State - wise during the above period?

Answer

MINISTER OF SCIENCE AND TECHNOLOGY AND EARTH SCIENCES

(Dr. Harsh Vardhan)

(a),(b)&(c): A Statement is laid on the Table of the House.

THE REPLY IN PURSUANCE OF THE STATEMENT MADE IN ANSWER TO THE LOK SABHA STARRED QUESTION NO. *244 BY THE HON'BLE MINISTEROF SCIENCE & TECHNOLOGY AND EARTH SCIENCES.

Part wise reply:

(a) Yes, Madam.The Council of Scientific and Industrial Research (CSIR) has been providing the S&T knowledgebase needed for the benefit of the common people. The efforts are focused at bringing in desired S&T interventions for improving the quality of life, removing drudgery and augmenting income of the people.

CSIR has developed technologies for: food and food processing; water; healthcare; building and construction; environment and sanitation; rural roads; cultivation and processing economic plants; farm machinery; leather; pottery etc. The technologies developed have been gainfully utilized in several states and contributed for improving quality of life and economic growth of common people.

CSIR has developed a number of technologies on water, ranging from source finding to mapping of water resources, from quality assessment to enhancing potability of water and from recycling to waste water treatment. The technology for community scale RO desalination plants has been developed. The RO plants in various states (Rajasthan, Tamil Nadu, Delhi, West Bengal, Gujarat etc.) have been set up based on the technology. Further, technology for arsenic removal from water has been developed and based on the same common people have benefitted in the state of West Bengal. Also high flux hollow fibre membrane based technology for water disinfection and purification at affordable cost has been developed and is being used at commercial level.

CSIR has developed KrishiShakti, a small range (11.2 hp) diesel engine tractor. The technology of the same has been transferred and manufacturing has been initiated in West Bengal. The tractor was launched in Delhi on 20th November 2014. During the launch five tractors were handed over to farmers. The KrishiShakti has enabled farmers with small land holdings for effective tilling.

A cost effective and efficient anti tarnishing lacquer has been developed for brasswares, helping the Moradabad brass cluster. The developed lacquer is very efficient to prevent tarnishing for long durations. Also, energy efficient brass melting furnace has been developed which is smoke-free coal furnace, handles more charge (brass melt), reduces gas emission and pollution by 80% and consumes 20% less coal. It is user friendly as artisans can adopt this furnace without changing their current practices and like the present furnace, this modified version can also be repaired by the artisans. The knowhow has been transferred for commercial use.

CSIR has developed an indigenous substitute of Ukraine clay in granito ceramic tiles which has reduced the Ukraine clay requirement from 20% to about 1%, reducing thus the foreign material import and associated costs. This has made major economic difference and benefitted small and medium scale enterprises in Gujarat.

A food processing unit has been set up at CSIR-Centre for High Altitude Biology (CSIR-CeHAB) in the remote tribal region of Lahaul

and Spiti. A brining unit has been designed and prototype developed for the preservation of locally and abundantly produced peas and cauliflowers. The knowhow was showcased at the District level Tribal Fair at Keylong and training organized for the benefit of progressive farmers in the area of food and food processing: making novel products from Buckwheat; and also brining of the peas which is a major crop.

CSIR has worked with the Indian Council of Agricultural Research (ICAR) for the development of highly priced rice variety, Samba Mahsuri, resistant to the serious Bacterial Blight (BB) disease. This new variety called, improved Samba Mahsuri has been released for commercial cultivation and is being very much appreciated by farmers growing rice.
CSIR in collaboration with Rice Research Station, Chinsurah, West Bengal has developed novel low grain arsenic accumulating rice genotype. The variety which is named as "Muktashree" will be soon released for cultivation in vast arsenic affected belts of West Bengal.

A novel variety of Ashwagandha with high root yield of 15 quintal/hectare has been developed and released to farmers which would help farmers with more earnings. The Ashwagandha has useful applications in pharma applications as anti-inflammatory, anti-stroke and anti-arthritis drug adjuvant.

CSIR has developed a new variety 'CIM-Jyoti' of Ocimum through intensive breeding efforts for high yield of herb and essential oil with desirable quality of higher citral (68-75%). This variety will produce citral in a short duration of 70-80 days. It also fits in crop rotation/intercropping between wheat and paddy and with other vegetable crops of small farmers. Leaves of this variety can also be used in lemon tea.

The people of North East India make a number of leather products but they were unable to reach the market and earn desired profit due to lack of aesthetic appeal and standardisation. There was a need to transform this knowledge into wealth by increasing the value of the products without losing its real essence. CSIR carried out a comprehensive survey in the north eastern region. Based on the inputs from the survey, new ranges of products were developed. The handbags are crafted and designed with the ethnic materials of the northeast and the inspirations are derived from Ornaments, Dresses & Artifacts adorned by tribal folks of the northeast India. The products were displayed in various national/ international fairs and have attracted many enquiries. This has benefited the women entrepreneurs of North Eastern region.

CSIR has set up post-harvest centres in Mizoram (Aizawl) and Arunachal Pradesh (Pashighat). These centres are focused at helping the local farmers in the region for value addition to their agricultural produce. The centres house technology for high efficiency drying and processing of ginger, cardamom, turmeric, chilies etc. The farmers are able to sell their produce at 20 − 25% higher price to the processing centres set up. The CSIR Post Harvest Technology Centres would generate direct employment to about 300 people.

CSIR has introduced and commercialized Lilium cultivation in Lahaul and Spiti region of Himachal Pradesh. CSIR has played a catalytic role in the promotion of commercial floriculture in Himachal Pradesh. The transfer of agrotechnologyofLilium in the region was realized by the flower growers through sale of cut flowers at Delhi flower market. Over 3000 farmers are engaged in floriculture in Himachal Pradesh.

CSIR has developed knowhow for easy cultivation of economically important seaweed, namely Kappaphycusalvarezii, which was disseminated to the fishing community in coastal regions of Tamil Nadu as supplementary activity to existing fishing activities. Presently, more than eight hundred Self-Help Groups (SHGs) are engaged in seaweed farming in the region. It provides a regular and sustainable income source for women, with each of them earning on an average Rs. 5000/- per month for a period of eight months in a year. CSIR has further developed integrated process for simultaneous recovery of two products from the harvested fresh seaweed, namely, hydrocolloid of commercial use and liquid biofertilizer for use by farmers.

CSIR has been adopting villages to promote employment generation and income augmentation. It has thus catalyzed commercial cultivation of Geranium in Uttaranchal and Lavender in Jammu & Kashmir through community participation. In these end to end missions, farmers have been trained not only for cultivation of Geranium and Lavender but also for extraction of oil, augmenting thus their income. Likewise CSIR efforts through development of niche Mentha varieties and their propagation for mass cultivation are noteworthy. The efforts have led to economic growth and have enabled India to acquire a world leadership position in Menthol mint oil production and export.

CSIR efforts for socio-economic development had led to: empowering people of the Kashmir Valley through creation of aromatic plant industry; development of bio-inoculants for enhancing plant productivity and its dissemination to the farmers in Uttar Pradesh in the partnership with the State Government on a very large scale and it has enhanced agriculture productivity; and development of mushroom technology, its transfer and training which has benefitted economically the rural women in North East States. CSIR has also launched the Jammu Aroma Arogya Gram (JAAG) Yojana for deployment of CSIR agri-technologies and handholding the farmers of J&K for cultivation of medicinal and aromatic plants in the state.

CSIR has been contributing in the area of healthcare. Some recently developed technologies/interventions benefitting the common people include: Streptokinase (a drug for cardiovascular disease); Risorine (a cost effective bioavailability enhanced anti-tuberculosis drug); Battery operated hand-held MicroPCR (towards affordable and point of care disease diagnostics for Tuberculosis, Malaria, Dengue, Chikungunya, Hepatitis B and H1N1); nonClonableID technology for medical product authentication; Diagnostic system for affordable, point of need testing to manage HIV and TB; Novel molecular diagnostics for eye diseases; and eHealth Center (eHC, a platform for the fourth paradigm of science, data-intensive discovery, while bringing affordable healthcare services to the doorstep of people). CSIR has recently developed a novel, safe poly-herbal formulation BGR-34 as a safe hypoglycaemic agent for management of diabetes conditions which has recently been commercialized by an industry.
CSIR has played a major role in protecting the traditional knowledge by creating a Traditional Knowledge Digital Library (TKDL). The TKDL contains information in 5 international languages, i.e. English, Japanese, Spanish, French and German concerning 2.93 lakh medicinal formulations in Ayurveda, Unani and Siddha. Through the TKDL access agreement concluded with European Patent Office

(EPO, 34 Member States), US Patent & Trade Mark Office (USPTO), Canadian Intellectual Property Office (CIPO), IP Australia, Japan Patent Office (JPO), United Kingdom Patent and Trademark Office (UKPTO), German Patent Office (GPO), Chile Patent Office and Malaysian Patent Office, examiners of these offices can utilize TKDL for search and examination of Intellectual Property applications filed but cannot make any third party disclosure. TKDL is recognized globally as a model for protection of traditional knowledge.

******

(b) Details of major R&D projects undertaken by CSIR Laboratories (situated in various States), during the last three years under the 12thFive Year Plan are as follows:

S.
No. Name of Nodal Laboratory and location Title of the Project
1. CSIR-Advanced Materials and Processes Research Institute, Bhopal Novel Energy Effective Metallic Materials for Automotive and General Engineering Application
2. Design and Development of Thermo Responsive & Magnetic Shape Memory Materials and Devices for Engineering Applications
3. CSIR-Central Building Research Institute, Roorkee Engineering of Disaster Mitigation and Health Monitoring for Safe and Smart Built Environment
4. Innovative Materials and Technologies for Next Generation Green buildings
5. CSIR-Centre for Cellular and Molecular Biology, Hyderabad Plant-Microbe and Soil Interactions
6. Epigenetics in Health and Disease
7. Conservation of endangered animals of India: Molecular Genetics and Reproduction Approaches
8. Biology of Ageing and Human Health
9. Plant Breeding, Genomics and Biotechnology
10. CSIR-Central Drug Research Institute, Lucknow Factors Governing competent gamete production and reproductive dysfunction
11. Towards holistic understanding of Complex Diseases: Unraveling the Threads of Complex Diseases
12. New Approaches Towards Understanding of Disease Dynamics and to Accelerate Drug Discovery
13. Emerging and re-emerging challenges in infectious diseases: Systems based drug design for infectious diseases
14. Anabolic Skeletal Targets in Health and Illness
15. CSIR-Central Electrochemical Research Institute), Karaikudi Multi functional electrodes and Electrolytes for Future Technologies
16. CSIR-Central Electronics Engineering Research Institute, Pilani Very High Power Microwave Tubes: Design and Development Capabilities
17. Research Initiative on Nano Devices and Nano-Sensors
18. Advanced Microsensors and Microsystems: Design, Development and Applications
19. Advanced Facility for Nano Electronics
20. CSIR-Central Food Technological Research Institute, Mysore New initiatives to boost agriculture productivity through maximizing pre-and post-harvest yields
21. Wellness through Foods and Nutraceuticals
22. Lipidomics Center
23. Creation of Advanced Research Facility in Molecular Nutrition
24. CSIR-Central Glass and Ceramic Research Institute, Kolkata Development of Novel CSIR Technologies for Manufacturing Tailored and Patient-Specific Bioceramic Implants and Biomedical Devices at Affordable Cost
25. Advanced ceramics materials and components for energy and structural application
26. Leadership in Specialty Glass and Optical Fiber Technologies
27. CSIR-Central Institute of Medicinal & Aromatic Plants, Lucknow Chemical Biology of Ocimum and other Aromatic Plants
28. CSIR-Central Institute of Mining & Fuel Research, Dhanbad Clean Coal Technology
29. Development of a technology for optimal extraction of locked-upcoal from under ground mines using artificial pillars
30. Development of under ground coal gasification technology in India
31. Development of suitable design methodology for extraction of coal at greater depths(>300 m) for Indian geo-mining conditions
32. CSIR-Central Leather Research Institute, Chennai Zero Emission Research Initiative for Solid Wastes from Leather
33. Science and Technology Revolution in Leather with a Green Touch
34. Research Initiative for Waterless Tanning
35. Design Innovation for Smart Material Transformation Yeaning Leather Life Style Products
36. CSIR-Central Mechanical Engineering Research Institute, Durgapur Robotics and Micro Machines
37. Autonomous Underwater Robotics
38. Intelligent devices and smart actuators
39. CSIR-Fourth Paradigm Institute, Bengaluru Advanced Research in Engineering & Earth Sciences: Data intensive modeling and crowd sourcing approach
40. CSIR-Central Road Research Institute, New Delhi Development and Application of Technologies for Sustainable Transportation
41. Evaluation of Economic Loss Due to Idling of Vehicles at Signalized and Mitigation Measures
42. Development of Indian Highway Capacity Manual
43. CSIR-Central Scientific Instruments Organisation, Chandigarh Advanced Instrumentation Solutions for HealthCare and Agro-based Applications
44. Opto-Mechatronics Technologies for Next Generation Sensors and Applications
45. CSIR-Central Salt & Marine Chemicals Research Institute, Bhavnagar Membrane & Adsorbent Technology Platform for Effective Separation of Gases and Liquids
46. Potassic(K) fertilizer Technology to Empower the Nation
47. High Purity Salt & Recovery of Valuable Metallons from Marine Resources
48. CSIR-HQ-Council of Scientific & Industrial Research, New Delhi S&T interventions to combat malnutrition in women and children

49. CSIR-Institute of Genomics & Integrative Biology, Delhi Centre for Cardiovascular and Metabolic Disease Research
50. Genome Dynamics in cellular organization, differentiation and enantiostasis
51.
CSIR-NCL-IGIB Joint Research Initiative: Interfacing Chemistry and Biology
52.
Wellness Genomics Project-Understanding genomic signatures of healthy living in Indian population
53.
Towards Understanding skin Cell Homeostasis
54. Effective Application of Community Health Efforts through New Age, IT Based Modes
55. Visualisation of Organisms in Action
56. CSIR-Institute of Himalayan Bioresource Technology, Palampur Plant Diversity: Study in gadaptation biology and understanding/exploiting medicinally important plants for useful bio-actives
57. Introduction, domestication, improvement and cultivation of economically important plants
58. Establishment of Centre for High Altitude Biology
59. Process and Products from Himalayan Region and their toxicological evaluation
60. CSIR-Indian Institute of Chemical Biology, Kolkata Understanding supra molecular ensembles and machines
61. Host Interactome analysis: Understanding the Role of Host molecules in Parasitic Infection
62. Neurodegenerativediseases:CausesandCorrections
63. TherapeuticsofChronicObstructivePulmonaryDisease(COPD)andRelatedRespiratoryDisorders
64. Bio-energeticDisorders:Amulti-modelapproachtomonitoring andmanagement
65. CSIR-MayoClinicCollaborationforInnovationandTranslationalResearch
66. CSIR-IndianInstituteofChemicalTechnology,Hyderabad BiocatalystsforIndustrialApplications&GreenerOrganic Synthesis
67. InherentlySaferPracticesforIndustrialRiskReduction
68. Organicreactionsingeneratinginnovativeandnaturalscaffolds
69. Non-Infringingchemistryandengineeringfor pharmaceuticals
70. MetabolicprofilingofhumanbodyfluidsbyMSandNMR
71. Screeningmoleculesinleadexploration
72. DevelopmentofSustainableProcessesforEdibleOilswithHealthBenefitsfromTraditionaland NewResources
73. DevelopmentofSustainableWasteManagement TechnologiesforChemicalandAlliedIndustries
74. IntelligentCoatings
75. DevelopmentofInnovativeTechnologiesforStrategicFlurochemicals
76.
Developmentof NovelVaccineAdjuvants
77. AffordableCancerTherapeutics
78. Advance DrugDelivery System
79. AugmentationofAnalyticalResearchFacilities
80. CSIR-IndianInstituteofIntegrativeMedicine,Jammu MedicinalChemistryforstemcellbiologyand regenerativemedicine
81. NurturinganewPan-CSIRdrugpipeline:highintensitypreclinical,clinicalstudiesonleadcandidates
82. CSIR-IndianInstituteofPetroleum,Dehradun Energy EfficientTechnologies
83. BiomasstoEnergy
84. CatalystsforSustainableEnergy
85. Newgenerationlubricantsand additives
86. ResearchInitiativeforLowEmissions
87. WastetoWealth-Wasteplastics
88. AdvancedCarbonMaterials
89. CSIR-IndianInstituteofToxicologyResearch,Lucknow IntegratedNextGenapproachesinhealthdiseaseandenvironmentaltoxicity
90. Nanomaterials:ApplicationsandImpactonSafety,HealthandEnvironment
91. CSIR-InstituteofMineralsandMaterialsTechnology,Bhubaneswar MineralstoMetalsforSustainablePlanet
92. Processingofnaturalgemstonesforaestheticimprovementandvalueaddition
93. CentreforSpecialMaterials
94. CSIR-InstituteofMicrobialTechnology,Chandigarh ManasaSuperorganism:UnderstandingtheHumanMicrobiome
95. CentreforBIOtherapeuticMoleculeDISCOVERY
96.
GenomicsandInformaticsSolutionsforIntegratingBiology
97.
Multidirectionalapproachesformolecularandsystemslevelunderstandingofregulatorynetworksinpathogenicmicrobes
98. DrugDiscovery:BugstoDrugsProgramme
99. ExpansionandModernizationoftheMicrobialTypeCulture CollectionandGeneBank
100. CSIR-NationalAerospace Laboratories,Bengaluru TechnologySolutionsforMicroAirVehicleDevelopment
101. AvionicsandFlightControlsCivilAerospaceTechnologies
102. AdvancedStructuralTechnologiesforAircraft
103. AerodynamicsandPropulsionTechnologiesforNextGenerationCivilAircraft
104. TransportAircraftDesignBureau
105. AugmentationandRefurbishmentofNationalTrisonicAerodynamicFacilities
106. CSIR-NationalBotanicalResearchInstitute,Lucknow Bioprospectionofplantresourcesandothernaturalproducts
107. GenomicsofMedicinalPlantsandAgronomicallyImportantTraits
108. RootBiologyanditscorrelationtosustainableplantdevelopmentandsoilfertility
109. CSIR-NationalChemicalLaboratory,Pune
HydrogenEnergy:OvercomingmaterialschallengesinPEMFCtowardsgeneration,separation,storageandconversionofhydrogen
110. Innovate,developandup-scalemodular,agile,intensifiedandcontinuousprocessesand plants
111. CatalystsforSpecialtyChemicals

EncapsulatedMicroorganismsforEnvironmental Protection
112.
113. Creating intellectualpropertyandcapabilities forthedevelopmentofimprovedsecurityfeaturesandsubstratesfortheIndiancurrencynote.
114. AMulti-Scale SimulationandModelingApproachtoDesigningSmartFunctionalMaterialsforuseinEnergy,ElectrochemistryandBio-mimetics
115. CentreforSurfaceandInterfaceScienceResearch
116. NuclearMagneticResonanceCentreforAdvancedResearch
117. National RepositoryofMolecules
118. Upgradationof Facilities/NationalRepositoryof MoleculesandNationalCollectionof IndustrialMicroOrganismsResourceCentre
119. CSIR-NationalEnvironmentalEngineeringResearchInstitute,Nagpur CentreofExcellence:WasteUtilizationandManagement
120. NationalCleanAirMission
121. CleanWater:SustainableOptions
122. CSIR-North-EastInstituteofScienceandTechnology,Jorhat NaturalProductsasAffordableHealthcareAgents
123.
EnvironmentalResearchInitiativeforPaperandProcess Industry
124. Advanced Polyolefins
125. NorthEastExplorationforPharmaceutical
126. CSIRAdvancedAnalyticalFacilityforNorthEast
127. CSIR-NationalGeophysical ResearchInstitute,Hyderabad GeodynamicandEarthquakegeneratingprocessesinNEIndiaandAndamanSubductionZone
128. Hazard duetoEarthquakesandTsunamiintheIndianregion
129. IndiaDeepEarthExplorationProgramme
130. Shallowsubsurfaceimagingofindiaforresourceexploration
131. CSIR-NationalInstituteforInterdisciplinaryScienceandTechnology,Thiruvananthapuram SustainableTechnologiesfortheUtilizationofRareEarths
132. Developmentoffunctionalfoodsandtheirformulationsforpotentialhealthbenefitsofcommonman
133. MoleculestoMaterialstoDevices
134. SpecialityMaterialsbasedonEngineeredClays
135. CSIR-NationalInstituteofOceanography,Goa OceanScienceTowardsForecastingIndianMarineLivingResourcePotential
136. GeologicalprocessesintheIndianOcean-Understandingtheinput fluxes,sinksandPaleoceanography
137. Geo-scientificinvestigationsfordecipheringtheEarth"sinternalprocessesandexplorationofenergyresources
138. IndianAquaticEcosystems:ImpactofDeoxygenation,EutrophicationandAcidification
139. AnalysesandHarnessingofMarineBiodiversityforBioremediationofAquacultureandIndustrialEffluents
140. CSIR-NationalInstituteofScienceCommunicationandInformationResources,NewDelhi CSIRKnowledgeGatewayandOpenSourcePrivateCloudInfrastructure
141. CSIR--WideConsortiumAccesstoOnlineInformationResources
142. Vulnerability assessment and development of adaptation strategies for climate change impact with special reference to coasts and island ecosystems of India
143. CSIR-NationalInstituteofScience,TechnologyandDevelopmentStudies),NewDelhi IndianS&TandInnovationPolicy
144. CS!R-NationalMetallurgicalLaboratory,Jamshedpur DevelopmentofZeroWasteTechnologyforProcessingandUtilizationofThermalCoal
145. DevelopmentofMagnesiumMetalProductionTechnology
146. CSIR-NationalPhysical Laboratory,NewDelhi DevelopmentofAdvancedMaterialsforNext-GenerationEnergy-EfficientDevices
147. AdvancedQuantumResearchandInnovation withUltraSmallSystems
148. MeasurementforInnovationinScience&Technology
149. ProbingtheChangingAtmosphereanditsImpactsinIndo-GangeticPlains(IGP)andHimalayanRegions
150. ResearchandDevelopmentonSingleTrappedIonbasedFrequencyStandard
151. CSIR-Structural EngineeringResearchCentre,Chennai InnovativeTechnologies forHealthAssessmentandDamage MitigationofStructures
152. EngineeringSustainableMaterialsandStructuresActionPlanI:Sustainability Through Eco-Balancing
153. EngineeringSustainableMaterialsandStructuresActionPlanII:SustainabilityThroughNano-TechnologyandBio-Mimetics
154. CSIR-Traditional KnowledgeDigitalLibrary,Ghaziabad Analysis andMonitoringofpatentapplicationsinInternationalPatentOfficeforpreventingmisappropriationofIndia'sTraditionalKnowledge
155. TraditionalKnowledgeDigitalLibrary2020
156. CSIR-UnitforResearchDevelopmentofInformationProducts,Pune Patinformatics
157. ChembioinformaticsforDrugDiscovery
158 OpenScienceandOpenInnovationInfrastructure

(c) The budget allocated to CSIR Laboratories (situated in various States) and spent, for pursuing R&D projects, during the last three years is given in the following table:

Rs. in Lakh

S. No.	State	Laboratory/ Institute	2012-13	2013-14	2014-15
1.	Andhra Pradesh/ Telangana*	1. CSIR-Centre for Cellular & Molecular Biology (CSIR-CCMB), Hyderabad*	2028.262	4619.283	2697.414
		2. CSIR-Indian Institute of Chemical Technology (CSIR-IICT), Hyderabad*	3119.030	4779.359	3924.713
		3. CSIR-National Geophysical Research Institute (CSIR-NGRI), Hyderabad*	1037.903	1897.843	1466.951
2.	Assam	1. CSIR-North East Institute of Science & Technology (CSIR-NEIST), Jorhat	1088.623	1847.52	1775.256

3. Chandigarh 1. CSIR-Central Scientific Instruments Organisation (CSIR-CSIO), Chandigarh 713.261 1908.739 1478.038
2. CSIR-Institute of Microbial Technology (CSIR-IMTECH), Chandigarh 1349.631 3154.203 2826.169
4. Delhi 1. CSIR-Central Road Research Institute (CSIR-CRRI), New Delhi 330.015 993.012 687.938
2. CSIR-Hq. - Council of Scientific & Industrial Research, New Delhi 566.792 632.755 770.950
3. CSIR-Institute of Genomics & Integrated Biology (CSIR-IGIB), New Delhi 1929.256 4478.842 3055.437
4. CSIR-National Institute of Science Communication And Information Resources (CSIR-NISCAIR), New Delhi 1682.921 1902.580 2038.203
5. CSIR-National Institute of Science, Technology and Development Studies (CSIR-NISTADS), New Delhi 108.630 186.386 212.330
6. CSIR-National Physical Laboratory (CSIR-NPL), New Delhi 2769.245 5291.345 954.541
5. Goa 1. CSIR-National Institute of Oceanography (CSIR-NIO), Goa 8442.746 6681.921 2497.760
6. Gujarat 1. CSIR-Central Salt & Marine Chemicals Research Institute (CSIR-CSMCRI) Bhavnagar 393.68 1733.810 1850.014
7. Himachal Pradesh 1. CSIR-Institute of Himalayan Bioresource Technology (CSIR-IHBT), Palampur 780.536 1871.798 1526.797
8. Jammu & Kashmir 1. CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu 1142.207 2888.612 1531.192
9. Jharkhand 1. CSIR-Central Institute of Mining & Fuel Research Institute (CSIR-CIMFR), Dhanbad 338.330 1151.936 1555.932
2. CSIR-National Metallurgical Laboratory (CSIR-NML), Jamshedpur 259.017 477.223 264.500
10. Karnataka 1. CSIR-Central Food Technological Research Institute (CSIR-CFTRI), Mysore 384.014 2016.975 1286.058
2. CSIR-National Aerospace Laboratories (CSIR-NAL), Bengaluru 6952.786 2867.279 1791.318
3. CSIR-4th Paradigm Institute (CSIR-4th PI) 123.198 1722.946 741.698
11.
Kerala 1. CSIR-National Institute of Interdisciplinary Science & Technology (CSIR-NIIST), Thiruvananthapuram 1238.099 1925.487 1816.992
12. Madhya Pradesh 1. CSIR-Advanced Materials and Processes Research Institute (CSIR-AMPRI), Bhopal 144.048 434.465 333.597
13. Maharashtra 1. CSIR-National Chemical Laboratory (CSIR-NCL), Pune 4082.418 4653.532 3711.802
2. CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur 366.701 1289.305 1040.484
14. Odisha 1. CSIR-Institute of Minerals and Materials Technology (CSIR-IMMT), Bhubaneshwar 856.879 1837.345 758.113
15. Rajasthan 1. CSIR-Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani 1024.624 3139.843 1971.327
16. Tamil Nadu 1. CSIR-Central Electrochemical Research Institute (CSIR-CECRI), Karaikudi 1062.922 3518.878 2899.023
2. CSIR-Central Leather Research Institute (CSIR-CLRI), Chennai 518.296 2029.377 1662.936
3. CSIR-Engineering Research Institute (CSIR-SERC), Chennai 1270.877 3723.455 1736.014
17. Uttrakhand 1. CSIR-Central Building Research Institute (CSIR-CBRI), Roorkee 136.574 776.360 791.725
2. CSIR-Indian Institute of Petroleum (CSIR-IIP), Dehradun 1046.169 1962.413 1237.899
18. Uttar Pradesh 1. CSIR-Central Drug Research Institute (CSIR-CDRI), Lucknow 2092.485 3877.217 6549.829
2. CSIR-Central Institute of Medicinal & Aromatic Plants, (CSIR-CIMAP), Lucknow 644.640 1158.239 1287.008
3. CSIR-Indian Institute of Toxicological Research (CSIR-IITR), Lucknow 594.934 1041.242 973.597
4. CSIR-National Botanical Research Institute (CSIR-NBRI), Lucknow 1150.543 2256.561 1838.568
5. CSIR-Human Resource Development Centre 475.693 405.725 363.967
19. West Bengal 1. CSIR-Central Glass & Ceramic Research Institute (CSIR-CGCRI), Kolkata 898.845 3231.834 2133.743
2. CSIR-Central Mechanical Engineering Research Institute (CSIR-CMERI), Durgapur 687.750 2042.249 2063.957
3. CSIR-Indian Institute of Chemical Biology (CSIR-IICB), Kolkata 1640.441 3848.855 2809.277